

Appl. No. 10/822,857
Amdt. dated January 19, 2005
Reply to Office Action of October 19, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 to 10 (cancelled)

Claim 11 (new): An electric toothbrush, comprising:

a housing;

an electric motor connected to said housing, said electric motor having a motor output member for rotation about a motor output axis;

a first transmission linked to said motor output member, said first transmission to convert rotational movement from said motor output member into rotational reciprocating movement at a first average angular speed and a first average angular sweep about a first transmission output axis; and

a second transmission linked to said first transmission, said second transmission to convert rotational reciprocating movement from said first transmission into rotational reciprocating movement at a second average angular speed and a second average angular sweep about a second transmission output axis that is parallel to said motor output axis and to drive an output member to reciprocate at said second average angular speed and said second average angular sweep about said second transmission output axis,

and wherein, said second average angular speed is greater than said first average angular speed and said second average angular sweep is greater than the first average angular sweep.

Claim 12 (new): The electric toothbrush as claimed in claim 11, wherein said second transmission comprises a first gear member and a second gear member, said second gear member being drivenly connected to said first gear member, said second gear member having a smaller radius than said first gear member.

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Claim 13 (new): The electric toothbrush as claimed in claim 12 wherein said said first gear member comprises a section of an internal gear connected to said first transmission, and said second gear member comprises a spur gear.

Claim 14 (new): The electric toothbrush as claimed in claim 11, wherein said motor output member comprises a first gear, and said first transmission comprises:

a rotatable second gear member which mates with said first gear member;
an orbiting member attached to said second gear, to convert rotation of said second gear to orbital movement; and

a rotatable slotted member slidably connected to said orbiting member, to convert said orbital movement into rotational reciprocating movement at said first average angular speed.

Claim 15 (new): The electric toothbrush as claimed in claim 14, wherein said rotatable second gear is an internal gear.

Claim 16 (new): The electric toothbrush as claimed in claim 11, wherein said output member comprises a brush head having an axis that is angled relative to said second transmission output axis.